STATINTL

STATINTL

Rec'd 11 March 64

March 4, 1964

STATINTL

P.O. Box 2831
Washington 13, D. C.

STATINTL

We are pleased to submit the following prices for 260 and 520 line targets mounted on film and on glass for your consideration.

(1) Three (3) each 260 line Data "T" Resolution Target mounted on glass at a unit price of each and a total price of STAT STAT

(2) Three (3) each 260 line Data "T" Resolution Target mounted on film at a unit price of each and a total price of STAT STAT

(3) Six (6) each 520 line Data "T" Resolution Target mounted on glass at a unit price of each and a total price of STAT STAT

(4) Six (6) each 520 line Data "T" Resolution Target mounted on film at a unit price of each and a total price of STAT STAT

These items can be delivered as follows:

Items 1 and 2 within 90 days after receipt of order.

Items 3 and 4 within 180 days after receipt of order.

The foregoing prices are submitted on a straight fixed price basis and contemplate:

Packaging and Packing: Best commercial level.
FOB: Postpaid.

STATINTL
[redacted]

Mar. 4, 1964

Shipment: Via Air Parcel Post.
Terms: Net 30 days.

The terms and conditions normally attendant to a unilateral fixed price purchase order are acceptable to us.

I hope this meets all of your requirements. If you have any questions, please contact the undersigned.

Sincerely,

STATINTL [redacted]

REW:hh

Total $8104.00

STATINTL
[redacted]

I was here
call me when you
are.

STATINTL

Approved For Release 2002/09/03 : CIA-RDP78B04747A001200030002-4

14 April 1964

DEVELOPMENT OBJECTIVE

SPECIAL TARGETS FOR INTERPRETATION EQUIPMENT EVALUATION

1. INTRODUCTION

Requirements placed on the EDL Branch by the Development Branch for evaluations in terms of MTF and resolution of various photographic exploitation instruments -- i.e., microscopes (zoom and scientific), microscope objectives, viewers, etc. -- demand the use of extremely high-quality, high-frequency (1000 l/mm and higher) resolution targets. Such targets are also required for much of the experimental work with optical systems and sensitometric materials. The EDL Branch has no such targets on hand. Commercially obtainable targets of the above quality are available up to 520 l/mm and are on order.

The 520 l/mm frequency has to be, at very least, doubled to approach the threshold capability of the microscopes, experimental optics and sensitometric materials now in either development or research stages.

2. PURPOSE

This development will provide the EDL Branch with the targets to perform the requirements laid upon it.

3. SCOPE

This development requirement will possibly entail some research/development in optics, photo-sensitive materials, and perhaps mechanics to attain a resolution target with a frequency which equals or exceeds the minimum 1000 l/mm high-contrast target requirement.

4. REQUIREMENTS

4.1 The target will be high contrast with bar-size ratio as defined in MIL-STD-150.

4.2 The lowest frequency will overlap the 520 l/mm target by no less than three patterns; for example, patterns 416, 466 and including 520 l/mm (the highest frequency of the target now being procured).

4.3 The highest frequency shall be equal to or exceed 1000 l/mm.

4.4 The density of the "clear" spaces between the high density bars will not exceed 20% of the bar density. An attempt shall be made to keep the inner clear space to as low density and maintain a uniformity over the entire frequency range as possible.

4.5 The high frequency, 1040 l/mm, will begin adjacent to the top of the "T" and progress toward the low frequency at the bottom of the "T".

4.6 Each individual target will be calibrated and tabulated results will accompany the respective target.

25X1A [redacted] see subj. Precontracts

CONFIDENTIAL

21 April 1964

MEMORANDUM FOR: Director, NPIC

VIA : Executive Director, NPIC

SUBJECT : Special Targets for Photointerpretation Equipment Evaluation

REFERENCE : Chief, Administrative Staff, O, DD/I, Memorandum dated 4 February 1964: Approval of Research and Development Activities.

In accordance with the authority delegated by paragraph 3 of the reference, approval for procurement of Special Resolution Targets for

25X1 Photointerpretation Equipment Evaluation - [redacted] in the amount

25X1 of [redacted] is requested.

25X1A [redacted]

CONCUR:

25X1A [redacted]

23 APR 1964
Date

23 APR 1964
Date

Director, NPIC

Attachment:
Annex A

Distribution:
Orig & 1 - AS/LB/NPIC w/a
2 - O/D w/a
2 - P&DS/DB/NPIC w/a

25X1A

25X1 NPIC/P&DS/DB: [redacted] mbf [redacted] 21 April 1964)

Group 1
Excluded from automatic downgrading and declassification

CONFIDENTIAL

Research and Development Project Approval Request

I. Identification

25X1

The NPIC, Plans and Development Staff, Development Branch, will sponsor the development and production of high-quality, high-frequency photographic resolution targets for an amount estimated by submitted proposal to be [redacted] These targets will be used by the EDL Branch for evaluating optical photointerpretation equipment and for related investigations. The internal designation for this project is "Special Targets for Photointerpretation Equipment Evaluation".

II. Objectives

The EDL Branch is presently purchasing high-quality targets with frequencies up to 520 l/mm high-contrast. To meet the requirements for evaluating equipment under development and for other related investigative experiments, the EDL Branch must have resolution targets with frequencies at least double that of the previously purchased targets. It is the objective of this development to achieve resolution targets that will permit EDL to fulfill its obligations.

III. Background

The basic difficulty in making high-resolution targets is in maintaining a constant density throughout the range of a target's frequencies. It is also difficult to control and maintain a very low density (ideally no density) between the high-density bars of the target. Another difficulty is encountered in retaining the sharp edges as well as the dimensions of the dense bars throughout the ranges of frequencies.

Only by controlling the exposure of each set of bars and spaces for a specific frequency can the density be maintained over the target's entire frequency range. Extraordinarily high-quality projection optics, usually microscope objectives, are required to "lay down" each bar group and to retain the dimensions and edge sharpness. Very high-acuity photo-sensitive materials are also necessary to support the sharpness and dimension requirements.

In summary, it is evident that these extraordinarily high-quality targets must be custom made.

IV. Technical Specifications

This is a high-contrast (100:1) target which will overlap the maximum frequency, 520 l/mm, of the presently available target (manufactured by [redacted] 25X1A and extend the frequency range to 1040 l/mm. The bar size ratio will be in compliance with Mil Std 150A, $\sqrt{2}$. This master bar target will be a standard which is not expected to become obsolete.

V. Contractor and Financial Arrangements

The contract will be placed with [redacted] 25X1A in accordance with the contents of their proposal titled "Special Targets for Interpretation Equipment Evaluation", No. 64-5. This organization has developed equipment techniques, necessary controls and procedures to produce a very acceptable target. The contract will cover a time period of 12 months and will produce six sets of master targets of 1040 l/mm high-contrast. The only other potential supplier for targets of this quality was the National Bureau of Standards and this agency declined to bid. Other organizations considered lacked the capability, consequently could not develop a product within a reasonable time.

VI. Coordination

This development has been coordinated with the appropriate department at National Bureau of Standards and is in accordance with the philosophy of [redacted] 25X1 "Study of Image - Evaluation Techniques", out of the U.S.A.F. Reconnaissance Laboratory, Aeronautical Systems Division.

Information concerning the proposed program has been brought to the attention of the Procurement Division, Office of Logistics and discussed with Office of Special Activities Personnel.

VII. Security

The program is to be negotiated on an [redacted] Confidential basis because of association with the sponsor. 25X1

SECRET
(When Filled In)

TECHNICAL BACKGROUND PROCUREMENT INFORMATION

I. Contractor 25X1A
A. Name and address: [redacted]

B. Evaluation of previous performance: Excellent

II. Brief description of this procurement: High quality photographic resolution targets (10404/mm high-contrast)

Estimated total amt. [redacted] 25X1

A. Deliverable items: Three (3) ea 10404/mm high-contrast targets on glass plates; three (3) ea 10404/mm high-contrast targets on film - all accompanied by calibration info for each target.

B. Is this procurement for other than a standard, "off the shelf" or slightly modified commercial item? yes If "yes", is it anticipated that any more of this unit will be procured? no If so, a complete set of directly reproducible manufacturing drawings and specifications would normally be included in this procurement. Comments:

After this development & delivery of initial items these targets thereafter will be available for off shelf procurement.

C. Will contract cover a period of more than 90 days? yes
If "yes", are progress reports desired? yes If so, indicate frequency, content and number of copies desired:

Monthly status reported by letter (3) copies.

D. Is any Government-owned property to be provided to the contractor?

no If so, list and indicate its availability (where, when, etc.) na

SECRET
(When Filled In)

SECRET
(When Filled In)

E. Is any special tooling involved? Possibly - see III Reasons

F. Security:
1. Association with the Sponsor is [redacted] Confidential 25X1

2. The specifications and/or drawings are NA

3. The item is Uncl

4. Contractor personnel known to be aware of this proposed procurement:

25X1A [redacted]

5. Other security information

III. Reasons for selection of this source. If other sources were considered, indicate results. If no other sources were considered, list the reasons why this firm is considered to be uniquely qualified to perform this work.

This corporation has developed techniques, quality control and instrumentation to produce 520ℓ/mm resolution targets of the quality required. With a slight push of the state of the art in photo sensitive materials and optics for this particular development there is more than reasonable assurance of achieving the desired end result. They certainly have a highly qualified technical competency.

IV. Technical contact 25X1 [redacted] 25X1
Name Telephone

[redacted]

In the event additional space is required, use the reverse side(s) of this form, with a reference to the item number to which the comment applies.

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